

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015099**Date Inspected:** 18-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

FCAW welding of weld joint WD1-A28B/B-30, 31 located on PCMK west tower, shear plate assembly, connection plates to stiffeners. Welders were identified respectively as 057180, 052075. QC was identified as ZPMC CWI Li Lin (QC1). The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-F. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhao Ying Sheng.

FCAW welding of weld joint WD1-A22A/B-22 located on PCMK west tower, shear plate assembly, connection plate to stiffener. Welder was identified as 054069. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yuan Hui Gang, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2331-TC-P4-F. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhao Ying Sheng.

FCAW welding of weld joint ED1-A27B/B-36 located on PCMK east tower, shear plate assembly, connection plate to stiffener. Welder was identified as 040533. QC was identified as QC1. The welding variables recorded

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by QC1 appeared to comply with WPS-B-T-2331-TC-P4-F. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhao Ying Sheng.

FCAW welding of weld joint ND1-A26B/B-35 located on PCMK east tower, shear plate assembly, connection plate to stiffener. Welder was identified as 053116. QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-F. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhao Ying Sheng.

### Bay 11

This QA Inspector randomly observed no welding related work in progress in Bay 11.

### Heavy Dock

SMAW welding of weld joints P475-E-3, 4 located on PCMK east tower, lift 1, skin A, cross beam assembly. Welder was identified as 040724. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Fu Wei Min, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-3213-B-U2a-1 for weld joint P475-E-4 and WPS-4213-TC-U4c-2 for weld joint P475-E-3. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhao Ying Sheng.

SMAW welding of weld joints P475-E-1, 2 located on PCMK east tower, lift 1, skin A, cross beam assembly. Welder was identified as 202100. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Fu Wei Min, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-3213-B-U2a-1 for weld joint P475-E-1 and WPS-4213-TC-U4c-2 for weld joint P475-E-2. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhao Ying Sheng.

### Blast Shop #1

This QA Inspector along with Caltrans QA Inspectors Paul Dawson and Mike Hasler were informed by ZPMC Inspectors that the interior surfaces of north tower, lift 1, elevations 18 meters through 38 meters had been grit blasted, prior to application of paint, and the steel surfaces were ready for QA Inspections. ABF and ZPMC Inspectors started to perform visual inspection of the areas indicated above and this QA Inspector visually observed several ZPMC workers were using shovels and air pressure from hoses to move sand blast, and vacuum hoses to remove sand blast from the areas indicated above. Many of the upper horizontal plate surfaces also had layers of sand blast that obscures these surfaces. At approximately 0500 hours, ZPMC QC informed this QA Inspector that north tower, lift 1 internal surfaces were not ready for final visual inspections. See the photographs below for additional information.

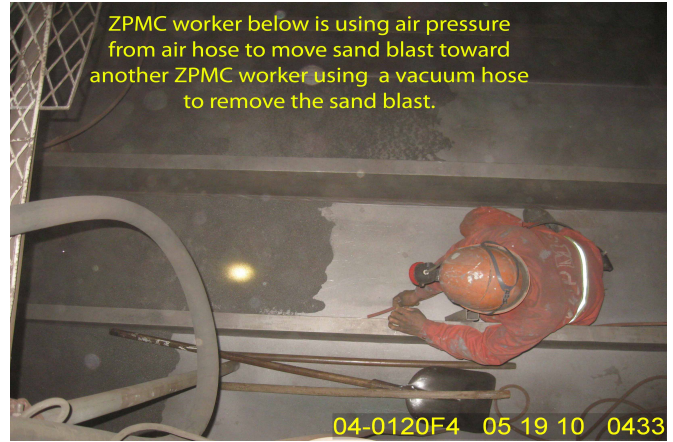
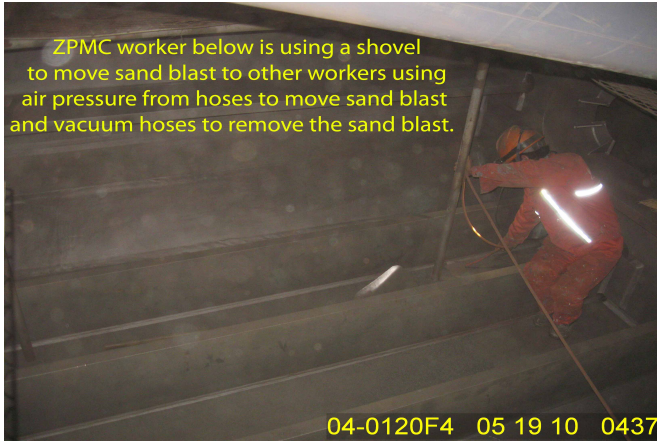
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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### Summary of Conversations:

As noted above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest, 150-0042-2360, who represents the Office of Structural Materials for your project.

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**Inspected By:** Goulet, George

Quality Assurance Inspector

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**Reviewed By:** Dawson, Paul

QA Reviewer